

DELTA FORCE[®] *TASK FORCE DAGGER*[™]

MISSION EDITOR MANUAL CONSUMER VERSION

This Mission Editor tool is a proprietary tool designed specifically to create missions for NovaLogic's action games. Since each game has different requirements and variables, the Mission Editor is constantly undergoing changes to best fit the current project. This manual covers the mission editor for Delta Force: Task Force Dagger. We will walk you through the process of setting up a mission, populating it with objects and enemies, and setting complex trigger statements and dialogue.

It is highly recommended that you walk through this manual in the order that it is written. Many functions will work only if the proper groundwork has been properly laid.

The Mission Editor Tool requires a minimum screen resolution of 800x600. For best results, we recommend that you set your resolution to at least 1024x768. It is also recommended that you have at least 160 megs of memory free when using the tool.

DISCLAIMER: The Delta Force: Task Force Dagger Mission Editor Tool is provided to the consumer "AS IS". NovaLogic technical support will not be able to answer any questions about this product or any issues related to its use.

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Section 1: Navigating the Tool

There are a number of keyboard controls and toolbar buttons that will help you work more efficiently. Many functions are mirrored in the pull down menus, but learning the key commands will prove to be more useful.

If you want to try out some of these commands, open the sample mission by clicking **File** then **Open** and select “Sample.mis”. This will bring up a map and some objects already laid out for you.

Mouse Commands:

Left Mouse – Selects or unselects an item in Select Mode or inserts a new item when in Insert Mode. You can left click on the **Unselect All** button or you can hit the **U** key to unselect everything. You can select more than one item at a time by moving the mouse near another target and clicking on it. Items turn yellow when selected.

The attributes of the most recently selected item will appear in the window in the lower left side of the screen. While an item is selected you can left click on the Selected Information Box in the left corner to pull up the Item Attributes window.

Left Mouse with **SHIFT** held down – Selects everything within the box you create.

Left Mouse with **CONTROL** held down – Unselects everything within the box you create.

Right Mouse – If you have an item selected, this will bring up a menu for copying, pasting, selecting and entering the Item Attribute window. If no items are selected, a menu for Insert Mode, pasting, and viewing options will appear.

Right Mouse with **SHIFT** held down – Quickly zooms in and out of the map. Click and hold the mouse button then move the mouse right or left to quickly zoom in and out of the map.

Right Mouse with **CONTROL** held down – Centers the map on the point you clicked.

Keyboard Commands:

Keypad 2,4,6,8 (with Numlock ON) - Scrolls map down, left, right and up respectively.

Page Up, Keypad 9, or Keypad Plus - Zooms map in.

Page Down, Keypad 3, or Keypad Minus - Zooms map out.

INSERT - Toggles between Insert Mode and Select Mode.

DELETE - Deletes selected items.

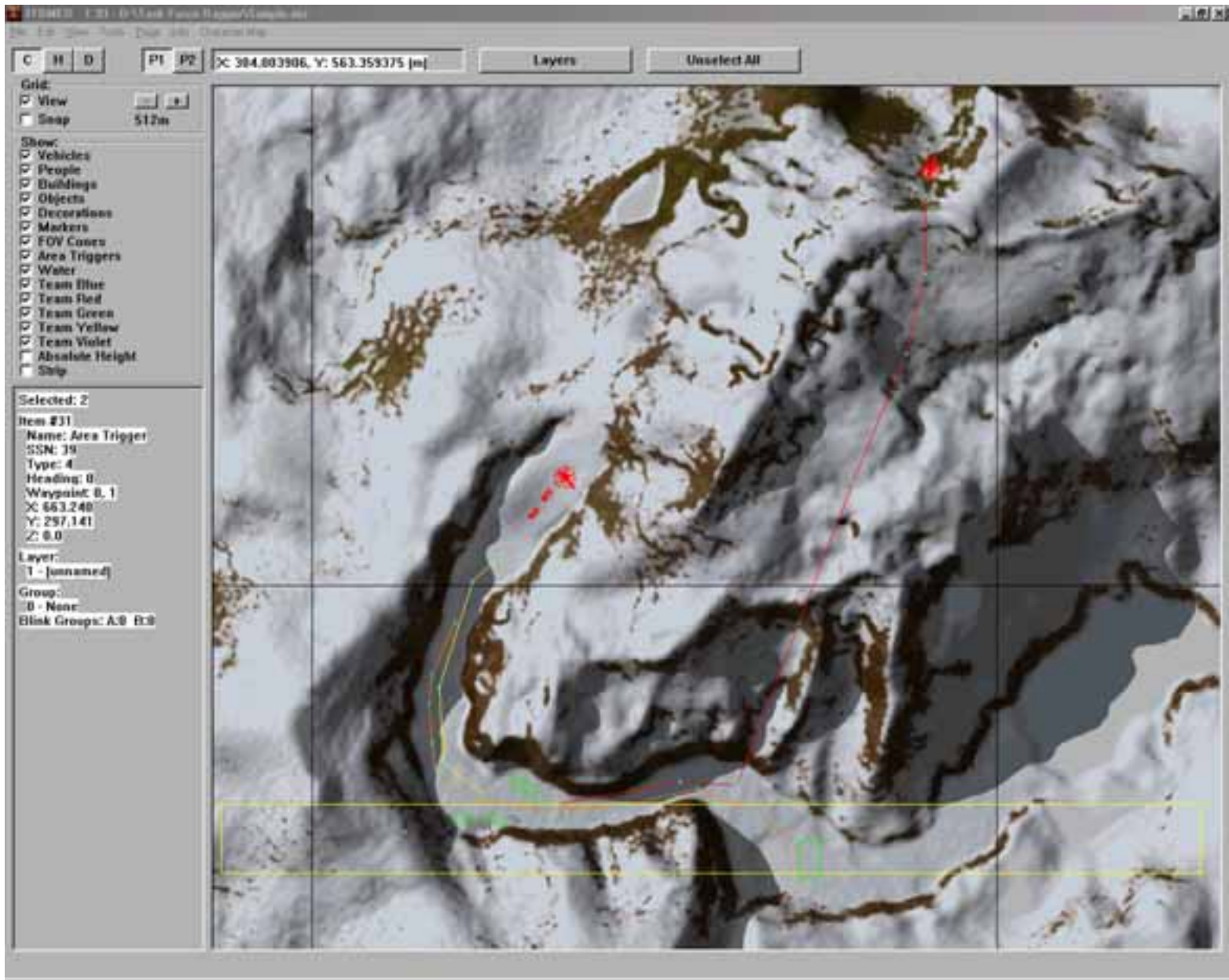
ALT – Hold to use hotkey listed in the toolbar menu. For example, pressing **ALT + E** pulls down the Edit Menu. After that, pressing **ALT + I** will open the General Information window.

ARROW KEYS - Move the objects you currently have selected in small increments.

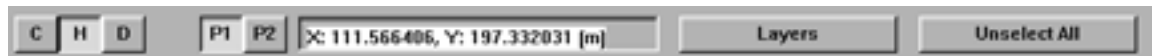
ARROW KEYS with **CONTROL** - Moves objects in much larger increments.

U - Unselects all selected items

The main editing screen.



Screen Buttons:



C – Character Map – Press this button or the **F1** key to show a full color representation of the terrain.

H – Height Map – This button or the **F2** key will bring up a topographical view of the terrain. The lighter the color on the map, the higher that part of the terrain. Solid dark areas are usually low, flat spots, which are good for bases or airfields.

D – Depth Map – This view simply shows the contour map of the terrain. The closer the lines are to each other, the steeper the grade. Solid black represents perfectly flat areas. You can also use the **F3** key to see this map.

P1 – Page 1 – The Delta Force: Task Force Dagger Mission Tool allows you to have two different missions open simultaneously. This feature is good for comparing missions or for copying/pasting elements out of one mission into another.

P2 – Page 2 – Press this button to display the second mission that you opened. You must be on this page when you open the second mission or it will replace your page 1 mission.

XY Coordinates – This gives you the grid location measured from the center of your screen. Click on this to type in new coordinates and the screen will center on them. The first box is full meters. The second box is increments of a meter divided by 256 (about .4cm). So, to move something half a meter you would input the number 128 into the second box.

Layers – This option brings up a box that allows you to select which layers you would like to see and which ones are hidden. See **Section 4** for more information on Layers.

Unselect All – This button (or the **U** key) will automatically unselect all items.



Grid – Items that you insert while the **Snap** box is checked will move to the nearest grid intersection. This is particularly useful when you want to line items up precisely. The **View** box will toggle the grid overlay on and off. Use the **Plus** and **Minus** symbols to increase and decrease the grid resolution (size).

Show – By checking the appropriate boxes you can choose which items you currently see and which are hidden from view. This is useful for finding specific things in a map filled with multiple kinds of items.

Selected Information Box – When you select an item, its most important statistics appear in the lower left corner of the screen. Click anywhere in this area to bring up the **Item Attributes** window. Once you learn how to insert items, this box will become more useful.

Section 2: Creating a New Mission

This section outlines the basic steps required to start making a mission for Delta Force: Task Force Dagger. The following pages detail the more advanced instructions, but for now we will go through the basic steps to familiarize you with the process since some of the later steps are dependent on the previous ones being set up correctly. Refer to **Appendix C** to see an example of a simple mission.

Step 1: Start the **DFTFDMED.exe** program. If you already have the program running and have opened a mission, please press **Clear** located under the **File** menu to start a new map from scratch.

Step 2: Select **General Information** from the **Edit** menu at the top of the screen.

Step 3: Enter a mission name and your own name into the appropriate fields. The mission name will appear in the mission select screen once the mission is exported.

Step 4: Select a **Mission Terrain** and **Map Type** from the list. If you are making a single player game, you do not have to make a selection. Now click “OK” to close the window and load the new terrain. It may take a while for the new terrain to load.

Step 5: Select **Edit** from the menu bar and then choose **Briefing**. When the window opens, enter a brief description of the map. When the mission is exported, this briefing will appear in the mission select screen. Mission briefings are limited to 256 characters, so be concise.

Step 6: You should now see a pulled back view of your map with a grid on it as well as a green and red box. These boxes simply frame the “center” of the map (X=0, y=0). The Mission Editor will not allow objects outside the red box. Anything outside this box will get pushed into the border when the mission is exported.

Step 7: In the **Grid** section, make sure **View** is enabled and set to 128 meters. Now zoom into the map until you see only four grid squares.

Step 8: Press the **Insert** key to enter **Insert Mode**, decide on a location for the player to start and left click the mouse to bring up the **Insert Item** window.

Step 9: In the **Insert Item** window, select “Markers” in the left hand column, then “Start, Player” in the right hand column, then click **OK**. This sets the point where the player will start the game. If you don’t place this marker, you won’t be able to get into the mission!

Step 10: Press the **Insert** key again to change back to **Select Mode** and use the left mouse button to select the icon that you just placed. Now click anywhere in the **Selection Information Box** on the lower left of the screen. This will bring up the **Item Attributes** window for that object.

Step 11: Change the **Team** to “Good (Blue)” then click **OK**. This sets the “team” that the item belongs to. Now set the group to Group 1 (The player must be group one, or “None” to work properly).

Step 12: Go to the **File** menu and select **Save** to save your mission.

Step 13: Although you could export and play your mission at this point, it probably wouldn’t be very interesting. You are now ready to begin placing enemies, setting mission events and determining mission goals. As you place them, refer to the appropriate section of this manual for more details.

Don’t forget to save your work often. Mission Designers will typically keep several back-ups of the files just in case they make mistakes on their current file.

Section 3: Editing General Information

Under **Edit** in the Tool Bar, select **General Information** to set the basic mission details. You will see the **General Information** window shown below.

Mission Name – The name entered here will appear in the mission select screen once it is exported.

Mission Designer – Put your name here.

Mission Terrain – This pull down menu contains all of the terrains you can use to build a mission. Consult **Appendix A** for a list of all available terrains and select the one that best fits the location of your mission.

Item Colors: Many of the assets in Delta Force: Task Force Dagger use one of three different camouflage styles: Green for grassy terrain, Brown for desert, or white for snowy terrain. (Alpha is no longer used). All items with multiple camo settings will use the one selected here when you export the mission.

The screenshot shows the 'General Information' window with the following settings:

- Mission Name:** Sample
- Mission Designer:** Jason
- Mission Terrain:** trngcamp.trn
- Item Colors:** White
- Dialog File (*.dbf):** (empty)
- Mission File (*.rc):** (empty)
- Default Equipment For Character:** (empty)
- Primary:** OICW
- Secondary:** MP5
- Sidearm:** Glock
- Explosives:** AT4 Rocket
- Auxiliary:** Double Ammo
- Primary Teammate:** No Teammate
- Secondary Teammate:** No Teammate
- Map Types:**
 - ☐ Cooperative
 - ☐ King of the Hill
 - ☐ Attack and Defend
 - ☐ Deathmatch
 - ☐ Team King of the Hill
 - ☐ Search and Destroy
 - ☐ Team Deathmatch
 - ☐ Capture the Flag
 - ☐ Flagball
- Terrain Overrides:**
 - ☐ Water Level: 0
 - ☐ Fog Level: 0
 - ☐ Fog Color: 0 0 0
 - ☐ No Voxels
 - ☐ No Shadows
- Sky Settings:**
 - ☒ Weather: Rain
 - Sun:** Overcast1 - Dull Gray
 - ☐ Night
- Win Conditions:**
 - Demolish Helicopter
 - Eliminate all resistance at Objective Orion
 - Avoid civilian casualties
 - Demolish all remaining aircraft
- Lose Conditions:**
 - Civilians killed or wounded
 - Null
 - Null
 - Null
- Misc:**
 - Fire Missions Available: 4
- Wind:**
 - Speed (kph): 0
 - Direction: 0
- Visible Campaign Variables:**

☐ 1	☐ 7	☐ 13	☐ 19	☐ 25
☐ 2	☐ 8	☐ 14	☐ 20	☐ 26
☐ 3	☐ 9	☐ 15	☐ 21	☐ 27
☐ 4	☐ 10	☐ 16	☐ 22	☐ 28
☐ 5	☐ 11	☐ 17	☐ 23	☐ 29
☐ 6	☐ 12	☐ 18	☐ 24	☐ 30

Buttons: Cancel, OK

Dialog File (*.dbf) – Not used in this version of the MED.

Mission File (*.rc) – Not used in this version of the MED.

Default Equipment – You can choose the gear that the player is recommended to carry for your mission. If the player makes no changes to their gear, the item selected for each inventory slot will be loaded as the default.

Primary Teammate – This is the character that will accompany the player on this mission (if you add them)

Secondary Teammate – If the player decides to play the character that you chose to be the primary teammate, this character will take on the role of teammate.

Map Types – Select what type of mission you are making. For single player missions do not select anything.

Terrain Overrides (Water)– You can raise and lower the water level in your mission (measured in 1/2 meters) to drastically alter the terrain. We recommend that you do not go over 130 for most maps or the entire mission may take place underwater.

Terrain Overrides (Fog)–If you want fog in the mission, select it here. The fog level value represents the distance you are able to see before the fog completely thickens and blocks all vision. A setting of 0 puts the fog at its furthest range for a clear day; 1024 meters (a little under a kilometer). Each value up from zero brings the fog closer by half. For example, a fog value of 1 will allow the player to see 512m (half of 1024 meters), but not any further. Valid ranges are from 0-10, though you will not be able to see much at values over 5 (32meters!). You can also alter the color of the fog by manually setting the Red, Green and Blue settings, though it is best when Gray (50,50,50).

Other examples of fog colors:

Bright Red = 255,0,0

Yellow = 0,100,100

Medium Green = 0,120,0

Black = 0,0,0

Dark Blue = 0,0,25

White = 255,255,255

Be sure to click the box next to each selection to enable it!

No Voxels – Turns off the terrain, which is made of voxels. If you have a mission that takes place entirely indoors, you can turn off the terrain. This helps save a lot of memory in the game. If voxels are off, you must make sure the player does not go outside or there will be no ground!

No Shadows - Turns off shadows in the game. Many objects in the game have built in shadows. Certain buildings, in fact, have a shadow that only shows up properly if the building is situated at 0, 90, 180, or 270 degrees. Any other angle and the shadow will be incorrect. If you need to put the building at any other angle, you should turn off shadows.

Sky Settings – With these settings, you can add weather effects such as rain or snow, set the position and brightness of the sun or create a night mission.

Weather - You must check the **Weather** box to enable anything other than a clear afternoon day. You can choose between a nice day, rain or snow.

Sun – Use the pull down menu to select the sky and sun (or moon) settings. Also be sure to check the **Night** box when choosing a night sky. This will properly adjust certain art elements to nighttime settings.

Fire Mission Available - The number in this box determines the number of air strikes available in the mission.

Win and Lose Conditions – Win and Lose conditions are also known as “Sub goals”. You can set up to four win and four lose conditions in this area. These selections are for goal information

text only. The actual win and lose conditions are set up through the events (see the section on **Events and Area Triggers**) which display the specified text on screen.

Wind Settings – If you want wind to play a part in your mission, set the wind speed and direction here. This can affect sniping severely.

Light Wind = 25 kph, Heavy Wind = 50 kph, Hurricane Wind = 90 kph

Visible Campaign Variables – A long name for something no longer used in this game.

Section 4: Groups and Layers

The most important part of building a good mission is organization. Planning your groups and layers is a major part of that organization. You can quickly get lost in a sea of meaningless numbers and objects unless you take the time to properly label everything. A little work in the beginning saves a lot of headaches later on.

Groups

Groups are used to classify related items, such as a squad of enemy helicopters, and set an identity for Events and Waypoints (explained later). If you want an asset to trigger an event, be triggered by an event, follow waypoints, or just about anything else, it has to belong to a group (even if there is only one unit in that group). By assigning multiple units to a single group, you can give them group commands or have a single event tied to the fate of every unit in that group.

Group names are specified by clicking **Edit** then **Group**. This brings up the **Groups** window. Highlight a slot and in the description area, type the name of the group such as “Player”, “Enemy buildings”, or “Enemy Reinforcements”. Keep your names simple and understandable. Once you have twenty or thirty groups, you may forget what a term was supposed to mean.

NOTE: When you place the “Start, Player” marker, it **MUST** be designated to group “1” and have its team set to “Blue, good” to properly set off area triggers.

The more groups you have, the more detailed your triggering can be. It is often better to give each unit its own group, and therefore its own orders, so that it doesn’t interfere with other units. However, placing multiple units in a group will save you time when setting up the mission. You can automatically select all units within a group from the **Group** window by pressing the **Select Members** button.

You are able to save and print your Groups list as a text file. Click **Save As** to save the list to a text file. Print out this file for easy reference. You’ll be glad you did.

Layers

A layer is simply a user assigned collection of groups and items that can be easily hidden from view. It is much like using the “show” field. By assigning similar elements to a layer, such as “foliage” or “vehicles”, you can quickly find exactly what you are looking for (or hide the things you aren’t seeking. You can create up to 32 individual layers for this purpose and assign an unlimited number of objects to a layer.

Under the **Edit** menu, you can change the **Layer Names** to whatever has meaning to you. Some examples of names are “Enemy Base”, “Friendly Waypoints”, and “Reinforcements”. When you just want to see a certain layer of items, hit the **Layers** button on the main screen and check the ones you want to see.

Section 5: Inserting Items

Items represent everything that exists on the map from enemy vehicles and buildings to waypoints and event triggers to scenery such as trees and water towers.

To add an item press the **INSERT** key to enter **Insert Mode** and left click to set a new object down. This will bring up the **Insert Item** window where you can select the type and sub-type of item that you want to place. Note that the **Markers** selection includes Player/team start positions, waypoints, and King of the Hill (KOTH) multiplayer areas.

For now we will place a soldier. Click the circle next to **People** and then select “Apfl (Russian)” and press OK. After placing the soldier, or any item, you can left click to insert another item. For now we will focus on our soldier.

Switch back to **Select Mode** by pressing the **INSERT** key and left click on the green semi-circle that represents the soldier and his field of view. The symbol will turn yellow and its basic statistics will come up in the **Info** box. Click on this area to open up the **Item Attributes** window. While in the **Item Attributes** window you can only alter attributes that pertain to the unit(s) selected. You will not necessarily need to fill in every field available. Some fields will be grayed out, indicating that that option is not available for the current item. Note that any attribute

The screenshot shows the 'Item Attributes' window with a blue title bar. The window is divided into several sections:

- Social Security Number:** 51
- Type:** Vehicle
- Sub-Type:** Hind -dagger (dropdown menu)
- Layer:** 1 - (unnamed) (dropdown menu)
- Position:** X: 462, Y: 824, Z: 0. ☐ Absolute Height
- Facing:** Heading (0 = North): 200, Pitch (90 = up): 0
- Map Symbol:** Cross (dropdown menu)
- Remove If...:** ☐ Less Than... 0 Players, ☐ More Than... 0 Players, ☐ Multiplayer
- Blink Group:** 0 Group A ☐ Parent, 0 Group B ☐ Parent
- AI Variables:** Group: 6 - Helo Reinforcements, Team: Evil (Red), Name: null, Alert State: Green, Field Of View: 40, Weapon Accuracy: 20, Perception: 30, Obliqueness: 15
- NPC Primary Weapon:** None (dropdown menu)
- Grenades:** 0
- Engagement Distances (m):** Max: 1024, Min: 16
- Waypoints:** List: 4 - Reinforcement Helos, Number: 0, Name: Null, Distance: 4. ☐ Hold WP Until Win Condition Completed: ☐ 1, ☐ 2, ☐ 3, ☐ 4
- AI Attributes:** ☐ Ignores Gunshots, ☐ Guarding, ☐ Ignore Yells, ☐ Strong Silent Type, ☐ Ignore Footsteps, ☐ Afraid To Swim, ☐ Deaf, ☐ Rolls Over, ☒ Blind, ☐ Coward, ☐ Standing, ☒ Hovering, ☐ Prone, ☐ I Can climb ladders, ☐ Break Left, ☐ Berserk, ☐ Break Right
- Timers (seconds):** Move: 3, Attention Span: 30, Crouch: 3, Fire: 10

Buttons: Cancel, OK

you modify will be changed for all items currently selected (where possible).

Item Attribute Definitions

Social Security Number (SSN) - The tool automatically sets this number when an item is placed. Every unit gets a SSN to differentiate it from other items in the mission.

Layer - All units belong to a layer. Selecting an appropriate layer will help you to better organize the mission. See **Section 4** for more information on Layers.

Position – These are the precise coordinates of where you placed the unit on the map. East = -X, West = X, North = Y, South = -Y, Above Ground/Sea Level = Z, Below Ground/Sea Level = -Z. Be sure to properly set the Height (Z value) if you want to put objects on top of other objects (like soldiers in towers). You will likely need to adjust the second Z number to precisely place objects on tables and crates as well. The first box for each coordinate is measured in meters. The second box is increments of a meter divided by 256 (about .4cm).

NOTE: The Z value of objects sometimes does not change properly when physically moved to a new altitude or does not display properly. Be sure to check your non-absolute value and set it to 0, 0 if you want it to sit on the ground. Tunnels should be checked as well.

Absolute Height - With Absolute Height on, the Z value indicates height above sea level. With Absolute Height off, the Z value indicates height above or below the actual terrain at that spot.

Facing - This is used to change the direction an item is facing. It can be set from 0 to 359 degrees with 0 representing north, 90 representing east, 180 representing south and 270 representing west. Pitch is the degree the object is pitched forward or backwards; something pitched at 90 will be pointed straight up rather than forward.

Map Symbol - Determines what type of symbol appears on the player's radar (if any). Make sure you use the same symbols throughout your missions or the player will get confused.

Remove if – This is used to remove units from the game in multiplayer co-op missions. For example: If a 4 is placed in the **Remove If Less Than...** field, that particular unit would only appear in that mission if more than four player were in the multiplayer game. This helps adjust difficulty.

Blink Group - Blink Groups in Delta Force: Task Force Dagger are used to visually link together underground and interior rooms. When the player is in a room, only the spaces that share that room's blink group numbers will be rendered. This helps reduce lag in enclosed spaces. You may set up to two blink group's per object by putting a number into the box for "Blink Group A" or "Blink Group B". The order doesn't matter, nor do the designations A or B, they are interchangeable. Setting one room's group A to 1 and then its adjoining room's group B to 1 will work fine. Objects and decorations inside a room don't require blink groups.

There are two important aspects to Blink Groups. The first is that a chain of blink groups must start with a Parent (described below). The second is that you must make sure that, when the player stands in an area, that all other rooms that can be seen from that spot share a common Blink Group. If they don't, they will not render and will look like a big black zone. In the diagram below, there is a series of tunnels with their blink group numbers listed. This will give you an idea of how they are laid out.

Parent – A parent is the first room in a blink group chain. They are usually the structures that sit above ground and act as the transitional area to underground or interior areas. A room marked as a parent will always be rendered. If it has a Blink Group number but isn't marked by a parent, it will not appear to the player until they are inside it!

AI Variables –

Group: You can name groups whatever you want by clicking on **Edit** in the top left corner of the tool and then clicking on **Group**. Units in the same group will follow the same waypoints, follow the same orders, and be considered multiple part of one entity. Groups are also used to trigger events.

Team: This designates good guys, bad guys and neutral guys. Red will target/attack blue and vice-versa whether marked as goals or not. Neither blue nor red will target a neutral item unless “Neutral Targeting” is selected (detailed below).

Name: If a name is given to a blue team asset, that name will appear over their head during the mission to identify them to the player.

Alert State - Selects the item’s initial alert status. This status can be changed through the use of events and area triggers. Green is low alert and red is high.

Field of View: This tells you to what extent people and vehicles can see around them. 10 degrees would be like someone with tunnel vision. A soldier with 360-degree FOV would have eyes in back of his head.

Weapon Accuracy: This number represents how well the unit shoots. Lousy shots are 0 and under, good shots are around 5, great shots are 10. Over 10 is inhuman. However, anyone will hit fairly quickly at close range. Also, the longer someone continuously fires at a target, the more accurate they will get.

Perception: This is a rating of how well the AI can see. 0 is near sighted, 20 will notice most stuff at short ranges, and 40 will notice you across a valley.

Obliqueness: Obliqueness is an “angle of attack” given in degrees up to 45 degrees. Instead of an NPC heading directly to an objective, they will “break left” or “break right” (as specified under their AI variables) and approach at the angle specified here. The angle is recomputed each time the NPC stops to fire or kneel. Setting different NPC squad mates to different obliqueness angles can allow them to flank and spread out around a single target.

NPC Primary weapon – Pick which weapon you want the computer controlled player to carry here. Make sure your level has a good mix of weapons and have them vary between burst, semi, and auto. Auto being the least setting used. You can also select how many grenades that unit carries. Do not give them more than 3 grenades or they will constantly throw them!

Engagement Distance - Determines how close an enemy must approach before the selected item will engage the enemy. Use distances between 350 and 10 meters Depending on weapon equipped. If you have a handgun equipped on an AI you wouldn't want a max engagement distance above 50m. If you have a M40A1 then not above 350max and not below 30min engagement distance.

Sub-type: If you want to change an object from the one you placed, you can select a new one here. If you change the sub-type to a different object, the attributes you set for the initial object sub-type will be retained.

Waypoints - This is where you assign groups to waypoints that they will follow during the game. (See section 6 for more detailed instructions on Waypoints). You can name and organize waypoint lists the same way as groups (Left click on **Edit** and **Waypoints**). The number field is used to number waypoints. The distance refers to the actual diameter if the Waypoint or King of the Hill scoring area. The **Name** pull down menu determines what name is attached to the waypoint on the player’s screen.

Hold WP Until Win Condition Completed – Sometimes you want a player to succeed in a mission objective before moving on to the next waypoint. When one of these boxes is checked, the corresponding waypoint will not cycle to the next one until the specified Win Condition is triggered

AI Attributes –

You can assign several different attributes to people or vehicles to assign differing reactions to them. By utilizing these options, you can personalize various NPC’s and ensure that they don’t all do the same thing as their friends.

Ignore Gunshots – Will not react to the noise of gunshots.

Ignore Yells – Will ignore the yells of warning from his friends.

Ignore Footsteps – Can’t hear the player’s approaching footsteps.

Deaf – Can’t hear anything. Use when you want to player to be able to sneak up and knife him.

Blind – Won't see his friends getting shot even if they are next to each other and won't see enemies. Deaf and Blind are good for keeping hostages from running away from firefights or keeping a Blackhawk from engaging enemies as it flies overhead.

Standing – Fires weapon from a standing position instead of the default kneeling position. Good for units standing behind bunkers. They are easy to snipe.

Prone – Fires weapon while laying down instead of the default kneeling position.

Break Left – Will move to the left when in a Red Alert unless it has other waypoints.

Break Right – Will move to the right when in a Red Alert unless it has other waypoints.

Guarding – This unit will hold its position. Good for units in towers. They are easy to snipe.

Strong Silent Type: This unit will not yell for help.

Afraid To Swim: This unit will only enter water up to a certain point.

Rolls Over: Not Used

Coward: When the player gets within a certain distance, this unit will cower and surrender.

Hovering: Used for helicopters to put them into the air.

Can Climb Ladders – Not Used

Berserk - When the player or an AI unit is labeled as berserk, they become an enemy to everyone. Their friends will shoot at them and AI's will shoot their friends. This is most often used to turn blue NPC's against the player who does too much friendly fire.

Move: This is the amount of time an NPC will spend running before deciding to fire or do any other action.

Attention Span – This is the number of seconds an NPC will continue to approach the last known position of a target after losing sight of them. If the target does not come back into view, they will continue on their original pathing.

Crouch – The amount of time, in seconds, that an NPC will stay in a crouched position before deciding whether to move.

Fire Timer - This number determines how many seconds the unit will spend firing at a target before attempting another action such as changing targets or running.

Helicopter Insertions:

If you wish to start the mission with the player inside an airborne helicopter, you must set the helicopter to "Hover" and give it a Z rating. Now place the player at the same spot and set their starting Z altitude to a number just slightly higher than the floor of the helicopter. The player falls a short distance when the mission starts and will pass through the floor if their altitudes are a precise match.

Inserting Tunnels:

Delta Force: Task Force Dagger has a number of special structures that are used to create tunnels and corridors. Placing them can be tricky, and if they are not matched up exactly, the player may warp through a crack and end up on the surface, or stuck in a wall. There is a sample tunnel layout at the end of this section. It shows some of the tunnel names and their blink group assignments to help you follow the process.

Follow these steps to place tunnels and set blink groups.

1 - Set your grid to 1 meter and engage the Snap function. This will greatly ease placement. Now find a nice big flat piece of land. Use the "H" button to spot the flat sections.

2 - Enter **Insert Mode** and select "tbunk" from the "Buildings" list. This is a bunker that sits above ground, but has a ladder that burrows 8 meters down. Place it on a nice flat piece of land and check its Absolute Z (Altitude) in the **Item's Attributes** box. Check it with Absolute turned off, then on. You'll need to know this number because every other piece will be based off of it. Notice how the piece has an arrow pointing from it. This tells you which way the opening faces. You connect pieces by lining up the arrows.

3 – Set tbunk’s blink group to 1 and check the “Parent” box. As a parent object, this bunker will always be rendered. Any above ground object that has below ground objects joined to it must be marked as a parent. Click **OK**

3 – Now place a level tunnel piece, “ttune”, south of the first one. Get out of insert mode and highlight the piece. If you zoom into the end you’ll see that there is a double line that flares out at the ends. This is where you usually line up pieces. Zoom out a bit and select “move”. Slide the piece up until it lines up with the flanged part of tbunk. In this instance (but not always) the arrow of ttune will be right over the center of the parent piece. If you have the snap action engaged the pieces should line up quickly. Now go into ttune’s attributes and set its Blink Group to 1.

4. Now you must set the proper Z axis or your hallways won’t line up vertically. Remember the absolute Z axis value for the parent piece, tbunk? The ladder descends 8 meters below that number. To keep things easier, all ladders and ramps are set to 8m or 4m heights. This means that the piece we just set should be set to an altitude exactly 8m less than the tbunk z value. Using the absolute Z axis is important here. Since the terrain changes height, you can’t set a piece to the non-absolute value or you will get some interesting hallways that connect to dirt.

4. Repeat the process for a third piece. This time, however, you should lay down a corner piece called “ttunc” and link it to the south end of the hallway. Set one of its blink groups to 1 and the other to 2. It doesn’t matter which number is in which box. Its Z value should be set to the same value as the last piece.

5. To the left of ttunc, place a descending hallway called “ttunf” It, once again, goes at the same Z value (8m less than the first, parent, object. This piece is a descending hallway. You can tell the direction of the decline by the arrow. It will always point downhill. Any pieces that attach at the bottom should be set 8m lower (16m less than the initial parent group). Set its blink group to 2.

Feel free to continue the process and match the diagram shown below. Just be sure to set all of your blink groups and make sure to adjust your Z values properly. **Save** and **Export** and give it a try.

Tunnel issues to look out for:

AI in tunnels: When placing AI in tunnels or buildings that utilize blink boxes, you **MUST** set the bad guys’ AI to the settings listed below. This is due to the close ranges of tunnels compared to the wide expanses of the rest of the game.

- a. Ignore Gunshots
- b. Ignore Yells
- c. Ignore Footsteps
- d. Deaf
- e. Attention Span 0
- f. Fire 0
- g. Move 3
- h. crouch 3

Can’t get into tunnels - If you suddenly pop to the surface, you may not have lined the pieces close enough. If you can’t get through an entrance tunnel, you may have placed it on ground that is too uneven, or it is set too high or too low to the surface. This disrupts the piece’s blink box that allows the player to pass through the ground and into the tunnels. Try adjusting the piece in _ or _ meter Z increments until it works properly.

Depth – Tunnels cannot be placed below the absolute Z depth of 0.

Underwater Tunnels - Tunnels cannot be placed below the waterline. If you do, the player will shift to swimming mode, but the water will be invisible due to the blink boxes.

The walls look different from their adjoining rooms - Texture maps do not always match because they are from two different sets of parts. The O series differs slightly in color from the T series of parts for example. You should make an effort match sets so they do not look out of place.

Group rotation – If you rotate a number of structures at once, you may have to realign them.

Z axis – Be sure to check your Z axis often, especially after physically moving a tunnel.

Blink Groups – Try to keep the number of objects in a blink group as small as possible to increase framerate. Be sure to check your line of sight, however.

Tunnel Diagram

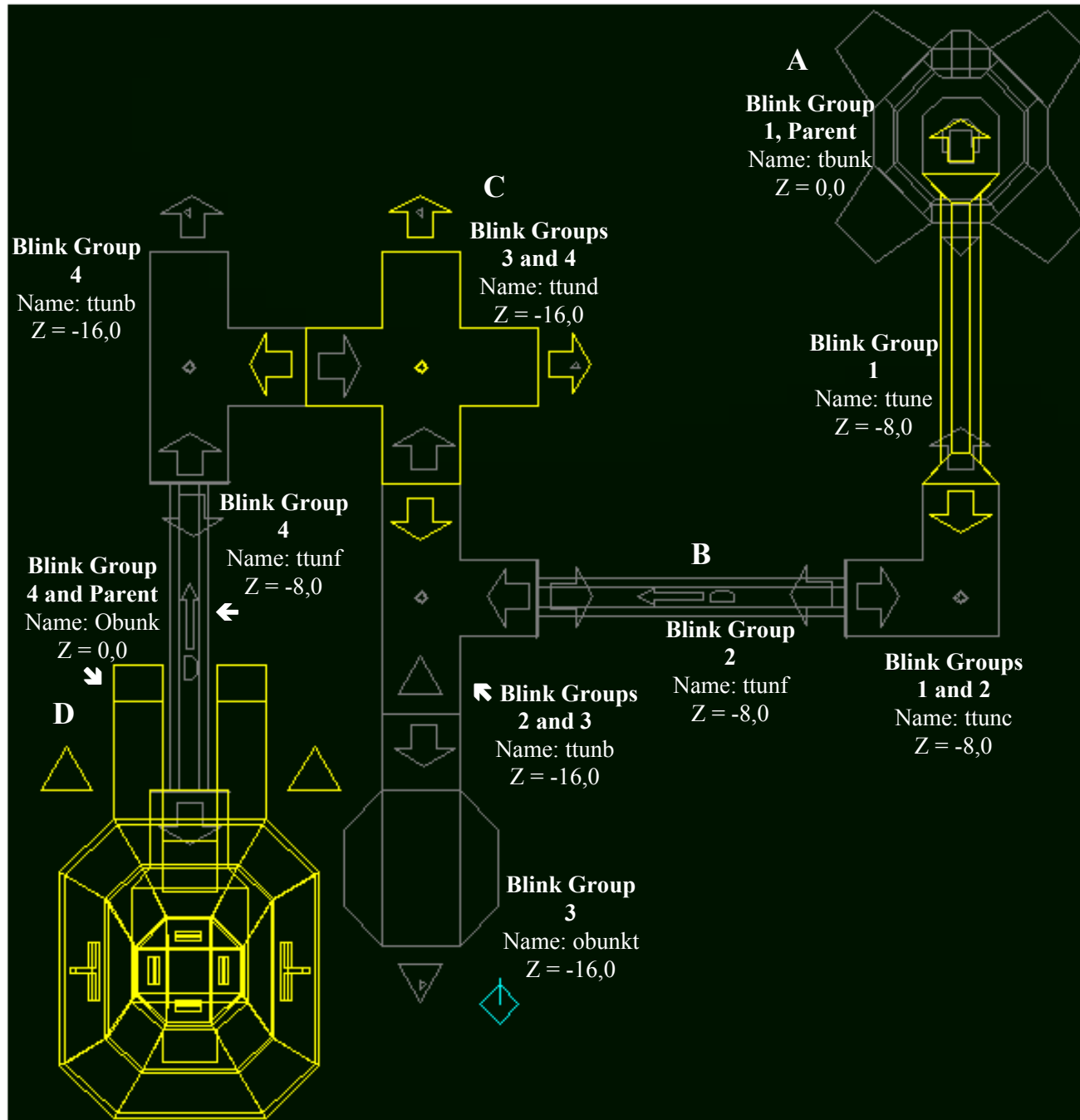
Below is a diagram of a partial tunnel complex showing the blink groups, the piece names, and Z altitudes. The tunnel placement walkthrough explains how to place the first four sections of this complex from sections A to B.

A - This is the bunker that leads the player below ground (as is the bunker at D). It must be on level ground and its Z value (not absolute) must be 0, 0. It descends 8 meters below the surface.

B - Note the arrow and "D" this shows that the piece has a downward slope. The declination on this piece is 8m.

C - A typical tunnel piece. The arrows denote openings that can connect to other parts.

D - Another entrance bunker. Make sure it sits properly on the ground.



Section 6: Waypoints

Waypoint groups tell vehicles and soldiers where to go. Before you can assign a unit to a set of waypoints, you have to name them. Choose **Waypoints** under the **Edit** menu to bring up the waypoint window. You can name a waypoint group with whatever name you chose, but it should be self-explanatory. The “Waypoint Size” show’s how many individual waypoints are part of a waypoint group. If you check the “Waypoint does not loop” checkbox, then the unit will come to a stop at its last waypoint. Otherwise, units reaching their last waypoint will attempt to head directly back to their first waypoint and repeat the path. Be sure to check the appropriate red or blue team box. When you are done click **OK**. To print out a list of your waypoint group names, click **Save As** to save the list to a text file then print that file.

While waypoints are there to guide the players, they aren’t required to follow them. So NEVER use “group 1 has reach waypoint...” as a trigger. Instead create a large Area Trigger (detailed under events) which covers anywhere the player could be when you want the event to happen and use the “group 1 in area...” trigger.

Waypoints are placed the same way as any other objects. In **Insert Mode**, select **Markers** from the list and choose **Waypoint**.

Waypoint Distance

Altering the distance of the waypoint in the **Items Attribute** window alters its effective size. Setting the distance to zero means that any AI trying to reach that waypoint will hit the point exactly, even if it means lining up in a column to do it. A larger distance gives more leeway, especially for the player who may not follow your waypoint course exactly or for NPC’s marching shoulder to shoulder.

Numbering Waypoints

In the window in the lower left of the screen you will see two numbers, such as 1-1 or 2-5, which designate the selected waypoint. The number before the dash indicates its Waypoint List number. The number after the dash indicates its position in that list. Waypoints are numbered from 0 up, not 1 up. So, to the trigger, the second waypoint in a list is “1” no matter what they numbered the object as.

Placing waypoints:

1. First we will set down waypoints for the player. Go to **Edit** in the menu and then select **Waypoints**
2. Select the first slot. Click in the **Description** box and type “Player’s Waypoints”
3. Below that is a box that determines a color for the lines connecting the waypoints. Select a color if you feel like it (blue works well for player waypoints since they are the blue team). Choosing different colors helps differentiate visually between groups when you have many waypoints in a small area.
4. Below the color box is a check box. This determines whether or not your waypoints will loop. If this is a not checked, any NPC’s following this path will return directly to the first waypoint once the path is completed. We don’t want our first waypoint list to loop. Click on it so that it is checked.
5. Check the box that says “Blue Team Waypoint” to specify which team it belongs to. Now click **OK**.
6. Go to **Insert Mode** by pressing the **INSERT** key.

7. Click on the map somewhere near the “start, player” marker that you placed earlier to add the first waypoint.
8. In the **Insert Item** window, click on **Markers** then select **waypoint**. The waypoint will now appear on the map.
9. Click somewhere nearby to place your next waypoint.
10. Notice that **Markers** and **waypoint** are already selected in the window that opens. Just click on **OK**.
11. Repeat steps 8 and 9 a couple more times.
12. Get out of **Insert Mode** by pressing the Insert key.
13. Select the waypoints you just placed and then click on the **Selection Information Box** to bring up the **Item Attributes** window.
14. In the item attributes, change the Waypoint List box to “1 – Player Waypoints”. Then choose a map symbol. If you don’t have a symbol, the waypoints will not show up on the player’s radar. Click **OK** to return to the map view.
15. You should now see a series of connected lines. This is your waypoint list. While NPC’s will follow this list, they still have to be individually numbered and (if needed) named.
16. Select the second waypoint in your list and open its **Item Attributes** window.
17. In the “Number” window change the current waypoint’s number to “1”. Waypoints count from 0 up and right now all of the waypoints have the same number, 0. You need to progressively number each waypoint so the order is specified. If you don’t, the order can get altered if additional waypoints are added. For player waypoints you can use the pull down menu to give the waypoint a name that will appear on screen.
18. Go through each waypoint and number them accordingly.
19. The waypoints should all be attached to the same waypoint name, be numbered correctly, and connected by a line. If the line connecting them on the map screen is incorrect, make sure your waypoints are numbered in the proper order from 0 on up. Incorrect numbering can also occur if you add waypoints to an already existing list. If this occurs, simply edit the number of each point manually.
20. Remember that you can attach a win condition to a waypoint by clicking one of the boxes in the **Item Attributes** window. Select one waypoint and click a numbered box. This attaches a win condition from the **General Information** window to that waypoint. Normally a waypoint will switch to the next one in line when the player moves over it. If a win condition is selected, that condition must be met before the waypoint will move on.

NPC waypoints

Laying down waypoints for NPC’s is done exactly the same way as player waypoints. The only difference is that you have to assign an NPC to a waypoint list.

To get the enemy unit to follow this new path, select the enemy unit and bring up their **Item Attributes** window. Under the **Waypoints** section, Select the proper waypoint list and click **OK**. Now that soldier will begin to follow this path at the start of the mission. You may assign multiple groups to the same waypoint path.

Remember that units may not be able to traverse all types of terrain. Choose your path with that in mind. They will also approach the closest waypoint in the path when starting their movement. If waypoint 5,3 is closer than 5,0, the NPC will begin at 5,3.

Vehicle waypoints

When moving vehicles, you must set up an event with both “change group velocity” and “redirect group to waypoint”. If you don’t set up an event in this manner, the vehicles will just sit there.

Section 7: Events and Area Triggers

Events

One of the most complex and powerful parts of mission editing is creating events. With this tool, you will be able to set up a series of actions that only occur when certain conditions are triggered. Each event is set up as an IF-THEN statement. In other words, IF a condition is met by the game, THEN the event takes place. An explanation of the various trigger and event If-Then statements can be found in Appendix B.

The most important thing to remember when setting up triggers for events is that the trigger logic goes from top to bottom. When you look at an event with multiple triggers, the order of And /Or triggers is very important. For example:

“A **and** B **or** C” will always trigger if C is true, and only trigger if both A and B are true.

“A **or** B **and** C” will only trigger when C is true along with either A or B. More complex logic such as “(A or B) and (C or D)” must be split into multiple events to handle the logic within the parenthesis.

Here is an example of how to set up a win condition for Delta Force: Task Force Dagger. Say you wanted the player (who must be set to group one, remember) to win the game if they destroy a certain vehicle, you would do the following:

1. While in **Insert Mode**, place a vehicle on the map.
2. Return to **Select Mode** and select the vehicle.
3. Right click the vehicle with the mouse and click on **Edit Item Attributes**. Select a unique **Group** under **AI Variables**. You may have to name a new group in the **Groups** window.
4. Open the **Events** window under **Edit**. You will see three large areas. The one on the left is where you choose events by name. The other two are the “If” and “Then” fields. Double click on << **New Trigger** >> in the “If” field to open the **Event Triggers** window.
5. Select **Group** for the **Trigger Type**.
6. Select **All Destroyed** for **Trigger Condition**.
7. Under **Trigger Variables** select the group # of the building that you just placed then hit **OK**.
8. Now double click on << **New Action** >> in the “Then” field to open the **Event Actions** window.
9. Select **Blue Win** for the **Action Type**.
10. Finally, for ease of identifying it, give the event a unique name at the top of the window such as “Win by destroying vehicle”.

You have just created your first event! Now, when the player destroys the vehicles specified, the mission will end and a win message will appear!

You can have multiple If and Then statements for one event by using the “And”, “Or”, and “X-Or” buttons. Whichever you click will affect the next action you create for that event. By using “And”, you can require that multiple units be killed, that the player is within a certain area, and no neutrals have been killed in order to win the game. Using “Or” let’s you use just one of a set of actions to trigger an event. If all the actions in an “Or” event occur, the trigger will still execute. “X-Or” will trigger an event if only one of the actions listed is true. If both are true, nothing will happen.

Other Event Commands

Reset after (seconds): Once this event has been triggered, the mission can be set to automatically reset the trigger after a specified number of seconds has elapsed.

Delay (seconds): This is how many seconds must pass before the actions will execute. 0 delay means that the actions will be carried out as soon as the trigger conditions are met. Please note that the delay will not work properly if you are using events to trigger other events.

Pre-Mission Event: Not used

Post-Mission Event: Not used

Win and Lose conditions / Sub-goals

In the **General Information** window are the Win and Lose sub-goal pull down windows. These windows represent specific sub-goals and are triggered as “then” statements. Once a sub-goal is triggered, the accompanying text (edited using the text tool strings) will be displayed.

Area Triggers

An Area Trigger is used to set off an event when the player, or any unit, enters a specified area. To set an Area Trigger go to **Edit** and then **Area Triggers**. Give a name to a trigger and click **OK**. Now enter Insert Mode and place two Area Trigger icons. They can be found under the **Markers** category. Exit **Insert Mode** and select only the two points you just placed. Now double click on the info panel to open the **Item Attributes** screen. Under waypoints enter the number of the Area Trigger that you just renamed (you will not see the name) and click **OK**. A box will now appear using your two icons as corners. You may now set events by choosing **Group Area Trigger** as your trigger condition then selecting the appropriate area in the pull down menu of the “If” statement window.

It is important to know that a unit will not set off an Area Trigger, even one triggered by an SSN, unless it belongs to a group and the player won’t set one off unless he or she is in Group 1. You can assign them to a group on their own, but they must be in a group.

Section 8: Exporting and Playing Missions

You will not be able to play or test your mission until you convert it into a file that the game can recognize. When you are at a point where you would like to test your mission, save your current file normally. This saves the editable .mis file.

Next select **Export Binary Mission** under the **File** menu to export and save. Your custom mission will have the extension of “.bms” and must be located in the same directory as your Delta Force: Task Force Dagger game for it to be seen by the program. Be sure your .bms and .mis have the same name to keep everything organized.

NOTE:

Exporting will export ONLY the map and its items. It will not export sounds or TextTool information. These sections are specified later in this manual.

To play your custom mission, start your Delta Force: Task Force Dagger game. In the **Single Player Quick Missions** or **Multiplayer Hosting Screen** (depending on the type of mission you created) and select your mission from the list of games.

To look through the sample mission, **Open** and then **Export** the Sample.mis provided with the game.

Number of Items Error

Each mission will only support a set number of items. When you export, the tool will indicate if you have too many different items.

The following Warnings can show up when exporting the file:

- The total number of Decorations and Buildings (X) exceeds the maximum (1024)
- The total number of Vehicles and Objects (X) exceeds the maximum (1024)
- The total number of Markers (X) exceeds the maximum (512)
- The total number of People (X) exceeds the maximum (256)

Note: Co-op and multiplayer missions should not have more than 60 AI units. Too many AI units will result in poor performance.

If you receive an error, the file will still export, but any items exceeding the maximum number will not be exported. The number of objects should be reduced to the limit or unpredictable things could happen as a result of the excess items not being exported.

Section 9: Sound Markers

One of the most important aspects of any game is sound. Environmental sounds help set the mood and locale while dialogue moves the story forward and gives the player vital information. Sounds are triggered in a few ways. Some are inherent to the objects to which they are attached, such as vehicle sounds. Others are placed as invisible objects that have looping sounds such as running water or birds.

Sound markers can be found in the **Insert Items** window under the **Markers** heading. They will all be prefaced with the prefix of “SND:”. Some will have a suffix of “Loop”. Loop sounds will play continuously and are not triggered by anything. If the player is within range of a sound, it will be heard. Other sounds (those without the “Loop” suffix) play at specified, slightly randomized, intervals.

Fall Off Distance

Every sound in the game fades as you move away from it. This fading is part of a pre-configured “fall off distance”. The fall off distance is the range between the sound marker and the point where it can no longer be heard. Many (though by no means most or all of them) have a fall off distance of 200 meters. The sound will slowly get quieter until, at 200 meters, it is completely silent.

You will typically want to keep sounds markers from overlapping. Test out the distances and set them accordingly.

Section 10: Design Guidelines

Now that you know the mechanics of making a mission, you must consider how to put the pieces together in a way that will be fun for the player and fit with the style and design of the existing missions.

Difficulty

Any mission you create will be difficult for other people. No matter how easily you can complete your mission, believe anyone that tells you they have trouble. There are a number of ways you can adjust the difficulty with good mission design.

Good ways to reduce mission difficulty:

1. Lower enemy accuracy
2. Reduce the number of enemies that can see the player at one time
3. Set fewer enemies to prone and more to standing.
4. Set some enemies as cowards, or trigger them to run away from the player.

Bad ways to reduce mission difficulty:

1. Blind or deafen the enemy
2. Don't give the enemy any weapons

Pacing

Missions need to have a certain flow to them. The opening view of the mission should be pleasant, and the first few moments of the mission should allow the player to get used to the terrain. The player should not be in immediate danger, and should have a good vantage point to figure out what they'll be doing. Once the player begins moving in, they should encounter patrols, sentries, or points of interest (like small villages). After this, they should come upon the main objective and be given opportunity to look it over before attacking it. Completing the primary objectives should be the height of action in the mission. If the mission requires extraction, there should be one more encounter on the way there.

Listed below are some general guidelines. Not all missions will run like this, but they are good guides.

- A. Opening
 1. Pleasant opening view
 2. No immediate threats
 3. Chance to survey area
- B. Approach
 1. Minor action or scenery to keep player interested
 2. Chance to survey target
- C. Target
 1. Action should ramp up and get more intense
 - a. A trickle of enemies is better than a flood, don't have the player get hit by everything at once.
 2. Avoid having to "hunt down the last guy", make necessary enemies come to the player or exclude far flung enemies from the win conditions.
- D. Withdrawal
 1. Minor action or scenery to keep the player interested
 2. Extraction area should be obvious (landmarks are good)

3. Don't try to kill the player at this point, the last fight can be thrilling, but shouldn't be deadly
- E. Finish
 1. The player should feel accomplishment and not wonder "Why'd I win?"

Details

Don't get wrapped up in triggering small details or events. Often times, you can spend too much time on one scene than should be spent. People won't sit and watch the AI move around for long. They're more likely to just shoot whomever they spot. So it's not as much a matter of **what** the AI is doing, as **where** the AI is.

Waypoints

1. Use the "move timer" in waypoints to have enemies pause during their patrols. This is a simple way to give them a little more character.
2. Set up large patrol loops and you can put multiple enemies on them.
3. Remember to use area triggers instead of waypoint triggers to set off events when the player reaches a destination.

AI attributes

1. Set higher minimum engagement distances on some enemies. This makes them more likely to fire than approach.
2. Vary the weapons the enemy uses, don't just give everyone the same gun, give some pistols, some rifles, some sub machineguns, etc. And change their accuracy to reflect the gun they use.

Triggering

1. Trickle bad guys out of hiding by triggering one to run out if a buddy of his dies outside
2. Replace sentries, like guards in towers, by using events to have someone run up and replace them if they die.
3. Send out "search parties" of 1 to 3 enemies if the player fires from an area or kills a sentry looking over the area.
4. Redirect some enemies to run to cover when they go red alert.

Other Hints and Tips

Plan out your mission before trying to create it in the Mission Editor. Having a good idea of what you want your mission to contain will make your work go much more efficiently.

1. For your first mission, open the **Sample.mis** file and begin tweaking aspects of it. This mission was created to give you a head start on creating a mission. Looking at how a mission designer lays things out may help you understand specific portions of a working mission.
2. For ease of viewing units, use the **Height Map** view (F2 key). The items will stand out more against this background, especially on snowy terrain.
3. Using the layering functions can help save a lot of time when fine tuning missions. Putting items in **Layers** may seem like a hassle for smaller missions but when more and more items are added, you will really wish that you had done it.

4. When you right click the mouse with no items selected, you can choose to **View by Side**; this will turn all of the bad guy's items red, all of the good guy's items blue and all of the neutral items green for ease of game balancing.
5. When placing buildings, use the F3 view to find a good flat spot.
6. In Capture the Flag missions, it's a good idea to drop a **"null" marker** on top of any flag you put down, then set the null marker to the team color of the flag. This allows you to see your flags from a zoomed out perspective, where they'd normally be hard to see.
7. A good rule of thumb for placing objects is whenever you want to place an object which has others like it already in the mission, it's simpler to copy and paste it, then modify the new one (rather than switch to insert mode and create a new one).
8. When moving vehicles, remember to set up an event with both "change group velocity" and "redirect group to waypoint".
9. You can rotate several objects at the same time by selecting them, right clicking and selecting "Group Rotate" from the list.

Start Markers

All types of maps need a player start marker. Multiplayer maps have different markers than the single player game and should have enough markers for simultaneous spawns of all players.

1. In Single/Coop games, this will be the "Start, Player" marker. One for each potential player.
2. Non-team multiplayer games will use the "Start, dm" marker.
3. Team games will use "Start, (red/blue) team" markers.
4. To determine a specific order players are loaded in multiplayer games, you may set a number for each start position in it's attributes under Waypoints in the Number field.

Save, export and test your mission often!

Appendix A: Terrain Types

There is a pull down menu for your **mission terrain** in the **General information** window. Each image on this page is a snapshot of the various terrains you are able to choose from that menu. If you change terrains after laying down items, you may have to manually readjust the item's z-axis number or it may end up underground.



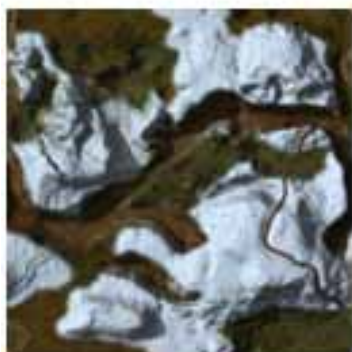
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OP18



OP19



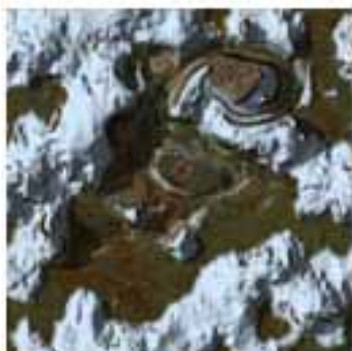
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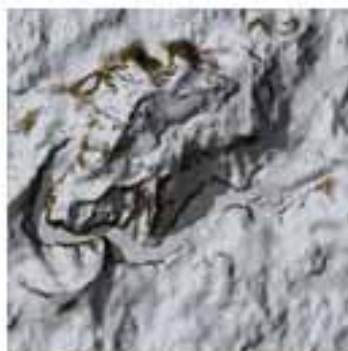
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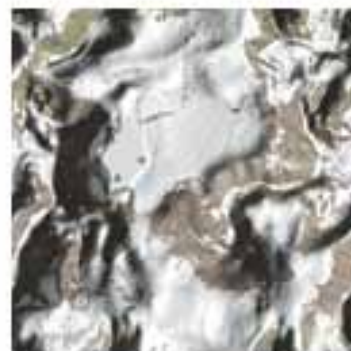
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OP23



OP24



OP25



OP1



OP2



OP3



OP7_8



OP9



OP10



OP11



OP12



OP13



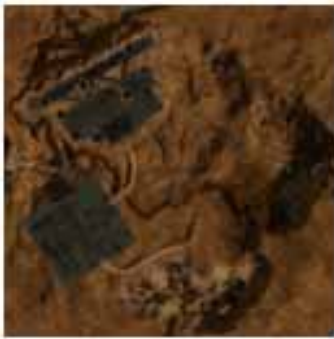
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OP15



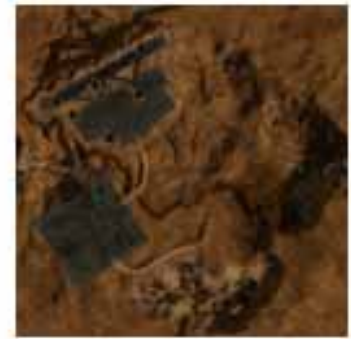
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K1



K1b



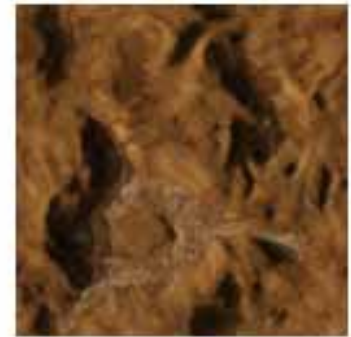
K1c



K2



MP01



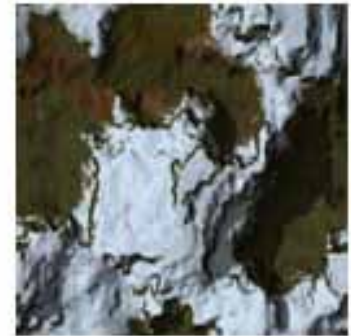
MP05



MP3



MP4



MP6



MP7



MP8



MP9

Appendix B: Trigger List

The following “If” and “then” statements describe a situation that must take place to trigger an event. When you select one of these trigger types in the events window, more options will open to allow you to specify what you want to be the trigger. For example, if you select “Group” as an “If” trigger, then a new pull down menu will open up. Pull down this menu until the group that you want to be the trigger is selected.

“IF” Statements

Trigger Types

Null: Always False. Can be used as a temporary placeholder.

Group: Triggers affected by Groups. Needs a Trigger Condition (see below).

Event: True if a different Event has been triggered.

CampVar: No longer used

2ndTime: True if this is the even numbered time the mission is played.

SquadMates: Events with this heading will only occur if there is a Squad Mate entered into the mission.

Group Trigger Condition

These options can be selected if you set your Trigger Type to “Group”.

Null: Nothing. Can be used as a temporary placeholder.

Seen Enemy: True if the AI spots the enemy, but has not targeted yet.

Has Targeted: True if Group X has targeted Group Y.

Condition Red: True if Group has spotted and is engaging the enemy. AKA Red Alert

Condition Yellow: True if Group has been alerted (sound, death of friend, etc) but does not see the enemy. AKA Yellow Alert.

All Destroyed: True if all members of the Group are killed/destroyed.

Any Alive: True if any members of the Group are still alive. This will trigger immediately unless other conditions are set.

Lost X Units: True if X number of units in Group have been killed.

Reached Waypoint: True if Group reached waypoint.

All Intact: True if every unit in this group is not destroyed.

Area Trigger: True if Group is within the Area Trigger.

Holds Item: True if Group is holding the specified item.

Has X Units: True if Group has X or more members alive.

Shot Enemy: True if Group X shot at and hit Group Y.

“THEN” Statements

Action Types

Null: Always False. Can be used as a temporary placeholder.

Redirect Group To: Make Group go to Waypoint X-X.

Kill Group: Immediately kill all members of Group.

Change Group AI: Change an AI attribute of Group (See “Action Subtype: AI” below) to “On” or “Off” or change an item attribute.

Vaporize Group: Remove the Group from the game.

Set Campaign Variable: Not used

Output Text: Not Used

Play Wavlist: Not Used

Blue Win: Triggers a game win for the Blue team and ends the mission.

Red Win: Triggers a game win for the Red team and ends the mission.

Green (Neutral) Win: The neutral team wins...hardly ever used.

Group Velocity: Change the movement speed (KPH) for vehicles.

Area AI, Red: Changes the AI of everyone on the red team within a specified area trigger.

Area AI, Blue: Changes the AI of everyone on the blue team within a specified area trigger.

SubGoal Won: Sub Goal X has been achieved.

SubGoal Lost: Loss Condition X has occurred.

Change Team: Change the team of Group. This is useful for changing civilians to enemies if the player shoots them.

Change Group: Converts one group into another.

Group Teleport: Instantly relocates a specified group to a teleport marker.

Action Subtype: AI

These actions can be chosen when you set the Action Type to “Change Group AI”

Null: Nothing. Can be used as a temporary placeholder.

New Weapon: Change the current weapon

Guard Bit: If he has waypoints, he will follow them and never stop to shoot at or follow an enemy unit. If he has no waypoints, he will not move, but he will shoot at enemy units.

Stander: Will shoot while standing (default is to crouch and shoot).

Proner: Will shoot while prone (default is to crouch and shoot).

Red Alert: Actively attacking/ looking for a specified enemy.

Yellow Alert: Heightened state of awareness, but not attacking.

GreenAlert: Everything’s clear.

Field Of View: Change the angle of Field of View.

Accuracy: Change the Accuracy level.

Perception: Change the Perception level.

Move Timer: Adjusts the time an AI will spend moving before resuming other actions such as shooting.

Crouch Timer: Adjusts the time an AI will spend crouching before resuming other actions such as shooting.

Attention Span: Adjusts how long an AI will look for something that they can no longer see.

Obliqueness: Adjusts the offset approach angle of an AI as they move towards a target.

Silent: Won’t call for help (but may make noise while dying).

Blind: Doesn’t see anything.

Berserk: When the player or an AI unit is labeled as berserk, they become an enemy to everyone. Their friends will shoot at them and AI’s will shoot their friends. This is most often used to turn blue NPC’s against the player who does too much friendly fire.

Climber: An NPC tagged as a climber will move up ladders to follow a target.

No Water: Doesn’t go in water.

Rolls Over: Does roll over animation when prone.

Coward: Will surrender when player is in proximity.

Deaf: Doesn’t hear anything.

Deaf to Gunfire: Doesn’t hear nearby gunfire.

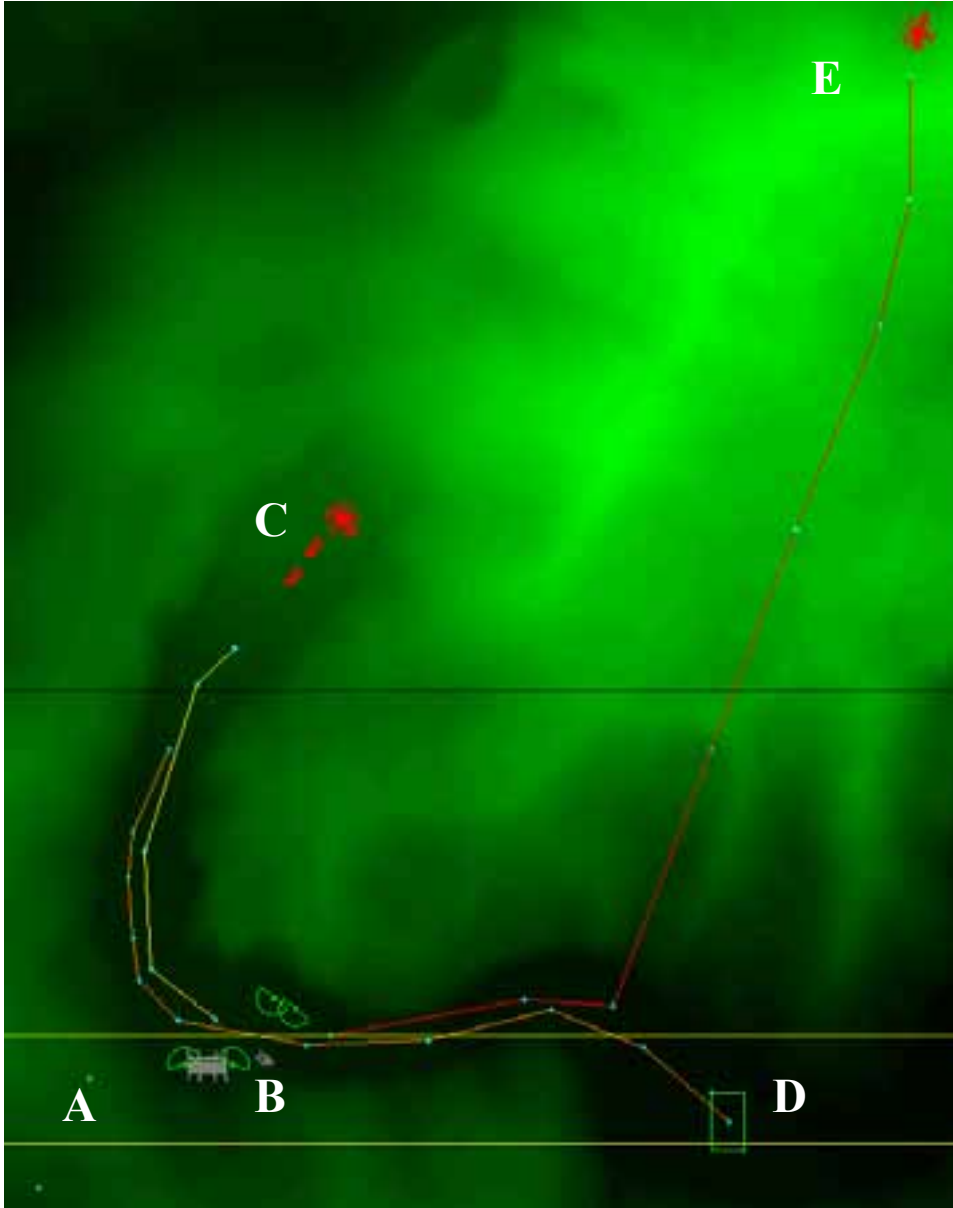
Deaf to Friendly Yells: Doesn’t hear yells of allies.

Deaf to Footsteps: Doesn’t hear nearby player footsteps.

Appendix C: Sample Mission

With the Delta Force: Task Force Dagger Mission Editor open, select **File**, then **Open**, then select the “Sample.mis” file. This mission was built for you to have a head start on designing a mission.

The tutorial terrain uses a snowy, mountainous map on a dark, windy, and rainy day.



A - The lower left side of the map shows the starting position for the player. The second blue dot is the player's waypoint.

B – This area has four guards who belong to the group “Enemy Guards”.

C – This is the starting point for the Civilian Trucks and Enemy Convoy helo. For them to follow the green waypoint path, an event is triggered when the player enters Area Trigger 1 represented by the long yellow box.

D – When both Civilian Trucks enter this box, it triggers a subgoal that must be completed to win the mission.

E – When the Enemy Convoy Helo is destroyed, this helo will come to investigate. Both are set to be “blind” just for this sample otherwise it’s a bit hard to survive.

There are 8 events in this mission:

(0) Start Convoy – When the player enters Area Trigger 1, the civilian trucks and convoy helo have their velocity set to 9 and are redirected to waypoint path 2. Area Trigger 1 is very large so the player cannot avoid it accidentally.

(1) Helo Reinforcements – If the escort helo is destroyed, the second helo has its velocity changed to 50 and is redirected to waypoint path 6 to intercept the player.

(2) The Getaway – If the convoy helo is destroyed, the civilian trucks speed up and move along waypoint path 5 until they reach safety.

- (3) No Civilian Casualties** – If both trucks enter Area Trigger 2, a subgoal is won.
- (4) Guards killed** – If all four guards are taken out, another subgoal is triggered.
- (5) Destroy Helicopter** – Destroying the convoy helo will trigger yet another subgoal necessary to win the mission.
- (6) 2nd Helo destroyed** - Destroying the reinforcement helo when it shows up will trigger subgoal number 4
- (7) Civilian Truck Destroyed** – If, at any time, one of the civilian trucks is destroyed, a losing subgoal is triggered and a “Red Win” is declared. This means that the player fails the mission.
- (8) Blue Wins!** – A Blue Win will be triggered on if events 3 (both Civilian Trucks enter area trigger 2), 4 (all four guards are killed), 5 (the convoy helo is destroyed), and 6 (reinforcement helo is destroyed) have been completed. As soon as the last objective is complete, a mission win message will appear.

This mission is just a test to show you how events, waypoints and triggers work. Feel free to alter this map and try out your own events and plans. When you save and export, be sure to save it with a different file name, or you will lose this map.

Appendix D: Key Commands

Mode	Keyboard	Mouse	Effect
2D	SHFT+CTRL+Q		Quick Test Mission (Requires NL EXE)
	U		Unselects currently selected item
		L-click "info" box"	Edit Item Attributes
	LEFT		Move Items Left 1/256 meter
	RIGHT		Move Items Right 1/256 meter
	UP		Move Items Forward 1/256 meter
	DOWN		Move Items Backward 1/256 meter
	SHFT+UP		Move Items Up 1/256 meter
	SHFT+DOWN		Move Items Down 1/256 meter
	CTRL+LEFT		Move Items Left 1 meter
	CTRL+RIGHT		Move Items Right 1 meter
	CTRL+UP		Move Items Forward 1meter
	CTRL+DOWN		Move Items Backwards 1meter
	SHFT+CTRL+UP		Move Items Up 1 meter
	SHFT+CTRL+DOWN		Move Items Down 1 meter
	SHFT+RIGHT		Rotate Items Right 1deg
Numpad Keys			
(numlock on)	NUMPAD LEFT/RIGHT/ UP/DOWN		Move Camera Left/Right/Up/Down
(numlock off)	NUMPAD LEFT/ Right/ UP/ Down		Move Object 1/256 meter
(numlock off)	CTRL+NUMPAD LEFT/RIGHT/ UP/DOWN		Move Object in 1 meter increments